



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,094	08/07/2003	Keith M. Borst	128834-2	3383
23413	7590	02/06/2006	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			XU, LING X	
			ART UNIT	PAPER NUMBER
			1775	
DATE MAILED: 02/06/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/638,094

Applicant(s)

BORST ET AL.

Examiner

Ling X. Xu

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/29/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-2, 4-12, 14 and 16-18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ohno (US 6,596,366).

With respect to claims 1-2, 7-8, 10-11, 14, 16 and 18, Ohno discloses an optical disc, which is considered to be a data storage medium, comprising a substrate, an interlayer and a reflective layer. The reflective layer comprises metal such as Al or Ag (col. 6, lines 35-60). The interlayer may comprise the same metal as the reflective layer (col. 5, lines 40-45) and may also comprise small amount of chromium (col. 7, lines 50-60). The substrate may be amorphous (col. 6, lines 40-50) and is made of resin material such as polycarbonate (col. 9, lines 15-20). Ohno also discloses a method of making the optical disc.

Since Ohno discloses the same materials for the substrate and the haze-prevention layer, the same materials would also have the same functions and properties as recited in claims 1, 14, 16 and 18.

With respect to claim 4, Ohno does not disclose that the substrate comprising any inorganic filler.

Art Unit: 1775

With respect to claims 5-6, 9, 12 and 17, Ohno discloses that the thickness of the substrate is 0.1-10 mm (col. 9, lines 5-25). The thickness of the reflective layer is 200 nm or less (col. 7, lines 60-67), and the thickness of interlayer is about 1-100 nm (col. 6, lines 60-67).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno as applied to claims 1-2 and 4-12 above, and further in view of the same reference.

As stated above, Ohno discloses the information storage medium comprising the same structure as recited in claim 1.

Ohno does not specify the protective layer having a percent transmittance of at least 90%. However, Ohno discloses a protective layer formed on the reflective layer with a high transparency (col. 9, lines 20-50).

Therefore, it would have been obvious to one of the ordinary skill in the art to make the protective layer with transmittance of at least 90% in order to obtain the highest possible transparency for the reflective article.

3. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohno as applied to claims 1-2 and 4-12 above, and further in view of Narayan et al (US 4,937,691).

Art Unit: 1775

As stated above, Ohno discloses the information storage medium comprising the same structure as recited in claim 1.

Ohno does not disclose the substrate is made of polymers recited in claims 3 and 15.

Narayan teaches the use of amorphous plastic such as polyetherimide or polysulfone as base plate (substrate) for data recording disk (col. 2, lines 1-20). Narayan also teaches that the amorphous polymer has rigidity and is excellent in heat resistance and dimensional stability (col. 2, lines 15-25).

Therefore, it would have been obvious to one of ordinary skill in the art to use the amorphous plastic including polyetherimide as the substrate for Ohno's information storage medium because these polymers have excellent property in heat resistance and dimensional stability, as taught by Narayan.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling X. Xu whose telephone number is 571-272-1546. The examiner can normally be reached on 8:00 - 4:30 Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah D. Jones can be reached on 571-272-1535. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1775

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ling X. Xu
Primary Examiner
Art Unit 1775